

Note: before using the system read this manual carefully, store it and, in case, transfer it to a new user.
prima



No-idle auxiliary battery operated air con
PICCOLO SPLITTER
Model PS3000 MY2012

Technical specifications

| | |
|---|-----------------------|
| Cooling capacity | 3000 btu |
| Voltage | 230V |
| Inverter | 24Vdc or 12Vdc |
| Max current (24V with +30°C T _{amb}) | 15 Ah |
| Airflow capacity | 290 m ³ /h |
| Fan speed | 3 + auto |
| Dehumidification capacity | 14 lt / 24H |
| Refrigerant gas | R134a |
| Remote control | with timer function |
| <u>Minimum requested battery capacity (24V)</u> | 240Ah |

Intended use

The PS3000 system is designed to keep the cabin compartment of the truck air-conditioned, with fresh and dehumidified air, during stops. The PS3000 is not intended and should not be used with the engine running while driving!



Both the internal evaporator unit and the external compressor unit are powered with 230Vac. Use extreme caution!

The alternate current is supplied by an inverter connected to the batteries of the vehicle. It's therefore essential for a proper functioning of the PS3000 that the batteries are in good condition, well recharged and of adequate capacity (the minimum suggested is 240Ah)



The inverter is equipped with a battery protection circuit that automatically turns the PS3000 off when the voltage of the battery drops below 21Vdc (10.5V in the case of vehicles with facilities to 12Vdc).

The PS3000 is not suitable for use on agricultural and construction machinery

Tips for an optimal use

To improve the operating efficiency of the PS3000: 1) if the truck is equipped with a engine-driven air-con system, cool down the cabin temperature before the stop; 2) park the truck preferably in a shadowed area; 3) if available, use window covers to protect the cabin from sun and heat; 4) keep windows close; 5) set a proper temperature and function mode (not too cool if not necessary); 6) reduce the power consumption of other equipments connected to

the batteries to ensure a longer working time of the PS3000 with engine off.



Warning!

The manufacturer assumes no liability for damages resulting from misuse, improper installation, unapproved modifications, abnormal service, fire, improper repair, tampering or abuse. Manufacturer shall not be responsible for any damages of any kind resulting from incorrect voltages or faults with regards to power supply which falls outside of the appliance operating parameters.

- Any maintenance and repair of the PS3000 must be performed by specialists, aware of the dangers connected to the system. Repairs carried out incorrectly can cause serious risks to safety
- Remember to always turn off the PS3000 before tilt the cabin!
- In case of fire, do not use water to extinguish it but use a fire extinguisher approved for use on live electrical equipments!
- Always check that the internal evaporator unit and the inverter have enough space around them for a proper air circulation and cooling! In particular, the inverter generates heat which must be properly released!



Warning! Risk of death from electric shock!

Never remove the cover of the internal unit without switching off the inverter from the main switch!
Do not touch electric wires with your bare hands!



For more info about the features of the inverter, please read the manual of the specific model included in the package.

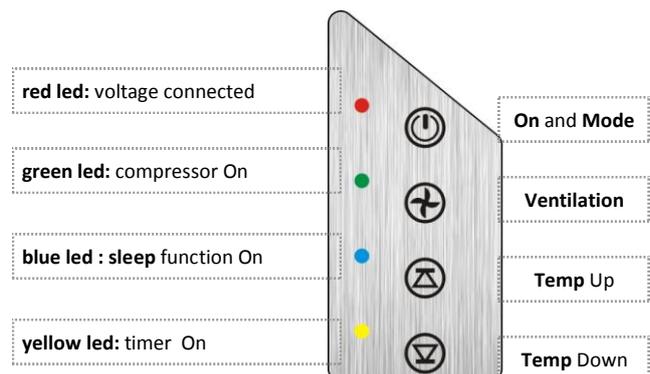
Switch on the PS3000:

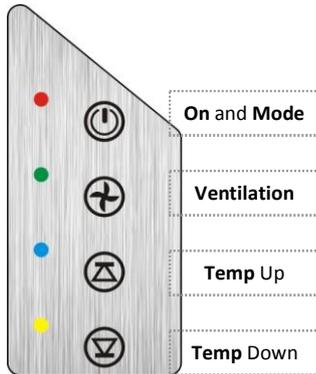
- switch on the inverter from the remote panel (led light on remote panel and red led on the control panel of the evaporator unit will light)
- now you can switch on the system from the remote control or from the upper switch on the control panel



Control panel

In the MY 2012 of the PS3000 it was added a control panel with many control (touch buttons) and diagnosis (colored LEDs) functions.





Use of the control panel:

On / Mode button:

- first press: PS3000 switch on in the conditioning mode (display shows "CO") you can set temperature and fan speed
- second press: the PS3000 works automatically (display shows "AU"): the internal temperature is determined by the system, you can modify the fan speed
- third press: the PS3000 works only as a dehumidifier (display shows "DR"); you can set the internal temperature, fan speed is pre-set at minimum
- forth press: the PS3000 works only as a fan (display shows "FA"); compressor is Off, you can set the fan speed
- fifth press: Unit will turn OFF

Ventilation button:

- first press: low fan speed (display: "S1")
- second press: medium fan speed (display: "S2")
- third press: max fan speed (display: "S3")

Temp buttons:

to set the required internal temperature inside the cabin



The digital display

The display on the internal unit, in addition to show the set and actual internal temperature, is also used by the self-diagnosis system of the PS3000.

In case of some system failures, the following alarm codes will be highlighted:

- E1: error, temperature sensor 1
- E2: error, temperature sensor 2
- E3: error, fan motor
- E4: low refrigerant gas pressure in the cooling circuit

In case your display show the above error messages, please contact your installer for a check of the system.



Use of the remote control

A remote control (powered by two AAA batteries) is supplied together with the PS3000.

The switching On of the PS3000 by the remote control is possible only with the inverter On (led light on remote panel and red led on the control panel of the evaporator unit lighted).

To switch On / Off the system use the central located On/Off button

You can select on remote the same functions available from the control panel by cycling the "M" button on remote:

- Conditioning
- Automatic
- Dehumidifier
- Ventilation

The "air flow" button of the remote is not active.

| icona | | icona | |
|-------|------------------|-------|-----------------------|
| | Automatico | | Velocità ventola |
| | Condizionamento | | Orientamento aria |
| | Deumidificazione | | Timer off |
| | Ventilazione | | Timer on |
| | Orologio | | Notturmo (silenzioso) |
| | | | Temperatura |

Orientation of the air flow

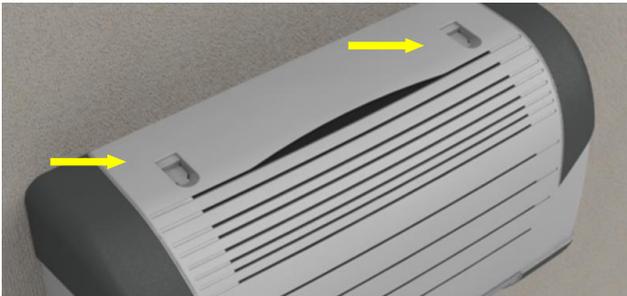
In the PS3000 MY2012 it is possible to direct the air flow manually

The orientation of the two air outlets is adjustable both in latitudinal and longitudinal directions.



Cleaning the filter

To access the filter remove the lid by pressing the buttons marked with yellow arrows and freeing the two lower guides. Clean the filter with water or natural cleansers.



Trouble shooting guide

Below a list of possible problems, root causes and remedies



Warning! Risk of death from electric shock!

Never remove the cover of the internal unit without switching off the inverter from the main switch!
Do not touch electric wires with your bare hands!

| PROBLEM | ROOT CAUSES | POSSIBLE SOLUTION |
|---|--|--|
| Internal unit on but the green led remains off (compressor off) | Temperture setting | Check remote control |
| | Ambient temperature < 18°C | |
| | Failure of electronic unit | Replace electronic unit |
| Internal unit will not switch on, all led lights off | DC fuse failure | Replace fuse and check power consumption |
| | No 230V output from inverter | Replace inverter |
| | 230V cord from inverter and compressor unit disconnected / damaged | Check, reconnect / replace AC cord |
| | Failure of transformer internal unit | Replace transformer |
| | Failure of the main electronic board, internal unit | Replace main electronic board |
| The internal unit is not receiving signals from remote control | Discharged batteries of remote control | Replace AAA batteries |
| | Dirt infrared sensor on internal unit | Clean infrared sensor area |
| | Failure of infrared sensor board of the internal unit | Replace infrared sensor board |

| | | |
|--|--|--|
| | Failure of the main electronic board, internal unit | Replace main electronic board |
| Fan of the internal unit is not working | Failure of fan motor | Replace fan motor |
| | Failure of the main electronic board, internal unit | Replace main electronic board |
| Fan of the internal unit is working with random speeds | Failure of the main electronic board, internal unit | Replace main electronic board |
| Vibration and excessive noise generated by fan | Unbalanced or broken fan blades | Replace the fan |
| Internal unit On, led light On, but the compressor does not work | No 230V to the compressor unit | Check the 230V connection on the internal terminal block (blue and brown wires) near the main electronic board; in case replace the electronic board |
| | 230V cord from inverter and compressor unit disconnected / damaged | Check, reconnect / replace AC cord |
| The fan on external unit is running but the compressor does not start (attention: the compressor has a start delay of 3 minutes) | Compressor disconnected | Reconnect compressor |
| | Failure of capacitor | Replace capacitor |
| | Failure of compressor protection | Replace protection |
| | Failure of compressor | Replace compressor |
| On the external unit the compressor is working but the fan is not running | Fan disconnected | Reconnect fan |
| | Failure of fan | Replace fan |
| DC fuse failure with unit Off | Short circuit of the inverter | Replace inverter |
| The unit is not cooling enough (less than 6°C differential) | Insufficient gas charge | Add refrigerant gas (check carefully pressure of the refrigerant gas line) |
| | Gas leakage | Check connections and taps. Verify if the conic washer in the LP line was installed. Identify and fix the leakage point. Vacuum and recharge the unit. |

Disposal

If possible, always take the packaging material for recycling.

If you wish to finally dispose the appliance, ask your local recycling centre or specialist dealer for details about how to do this in accordance with the applicable disposal regulations.



The coolant circuit contains R134a – CFC free

Versions, technical modifications and delivery options reserved. Manufactured in Italy

